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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/923,115	08/06/2001	Arthur H. Barnes	10010364-1	9547

7590 01/15/2003

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[REDACTED] EXAMINER

SOHN, SEUNG C

[REDACTED] ART UNIT [REDACTED] PAPER NUMBER

2878

DATE MAILED: 01/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/923,115	BARNES, ARTHUR H.
	Examiner	Art Unit
	Seung C. Sohn	2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-14 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 06 August 2001 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 & 3.
- 4) Interview Summary (PTO-413) Paper No(s). _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "computer memory" in claim 14 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. ***Claims 1-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagao et al. (Patent No. US 4,810,894).***

Referring to claim 1, Nagao et al. discloses the following steps of Applicant's claim:

a) recording data representative of medium thickness and transmissivity using an incident light source (Col. 1, lines 60-68); and

b) comparing recorded data from said recording to predetermined data representative of known print medium thickness and transmissivity (Claim 1).

Referring to claim 2, Nagao et al. discloses recording transmissive light levels of the print medium over a lightwave reflective element, and recording transmissive light levels of the print medium over a lightwave absorptive element (Col. 3, lines 22-29).

Referring to claim 3, Nagao et al. discloses that when no match between said recorded data and said predetermined data is obtained, storing said recorded data as a new print medium data file (Col. 3, lines 57-65).

Referring to claim 4, Nagao et al. discloses that the method as set forth in claim 1 embodied in computer code (Col. 3, lines 54-56).

Referring to claim 5, Nagao et al. discloses the following steps of Applicant's claim:

- a) beaming transmissive light through a first type of print medium (Col. 3, lines 22-23);
- b) impinging the light onto surface reflective of the light and a surface absorptive of the light (Col. 3, lines 24-25);
- c) recording a profile representative of light reflection and light absorption (Col. 3, lines 30-34), and
- d) storing said profile in a memory with an identifier associated with said first type of print medium (Col. 3, lines 63-65).

Referring to claim 6, Nagao et al. discloses

- a) beaming (radiating) transmissive light through a second type of print medium (Col. 4, lines 58-59);
- b) impinging the light onto surface reflective of the light and a surface absorptive of the light (Col. 4, lines 60-64);
- c) recording a profile representative of light reflection and light absorption (Col. 4, lines 64-67); and
- d) storing said profile in a memory with an identifier associated with said second type of print medium (Col. 5, lines 62-66).

Referring to claim 7, Nagao et al. discloses said memory is used as a lookup table for identifying (Col. 3, lines 45-49).

Referring to claim 8, Nagao et al. discloses the following steps of Applicant's claim:

- a) storing first data representative of media thickness and transmissivity of a single sheet of a known print medium (Col. 3, lines 45-49),
- b) storing second data representative of media thickness and transmissivity of at least two stacked sheets of a known print medium (Col. 3, lines 57-60);
- c) recording third data representative of current medium thickness and transmissivity during transport of said current medium from a supply toward a printing zone (Col. 3, lines 63-65), and
- d) comparing said third data to said first and second data (Col. 4, lines 64-67).

Referring to claim 9, Nagao et al. discloses the following elements of Applicant's claim:

a) mounted for bracketing a print media transport path, emitter – receptor means for directing a light beam across the transport path, the light beam having predetermined intensity and wavelength for penetrating print media (Col. 3, lines 22-29); and

b) aligned with the emitter means such that said light beam is received after passing through a sheet of print media in said path, an associated light absorbing means and an associated light reflecting means for receiving the light beam (Col. 30-42),

wherein the receptor means provides an output signal indicative of thickness and transmissivity of the sheet (Col. 1, lines 7-11).

Referring to claim 10, Nagao et al. discloses that said output signal is a first level when no paper is interrupting the beam, a second output signal indicative of a single sheet of print media interrupting the beam, and at least one other signal level indicative of multiple sheets of print media interrupting the beam (Col. 3, lines 43-56).

Referring to claim 11, Nagao et al. discloses said output signal is a first signal when no paper is interrupting the beam, a second signal when the sheet of paper is interrupting the beam over a reflective surface, and a third signal when the sheet of paper is interrupting the beam over an absorptive surface (Col. 6, lines 35-41).

Referring to claim 12, Nagao et al. discloses mounting means for scanning said beam across a paper transport path of said paper wherein a reflective element and

absorptive element are mounted transverse to said transport path such that the sheet of paper passes between said mounting means and said reflective element and absorptive element (Claim 4).

Referring to claim 13, Nagao et al. discloses the emitter means is an LED optical emitter mounted for projecting a light beam through the paper wherein the light beam has a predetermined intensity and wavelength for penetrating and being reflected back through at least two sheets of print media (Col. 3, lines 23).

Referring to claim 14, Nagao et al. discloses the following elements of Applicant's claim:

- a) computer code for recording data representative of print medium thickness and transmissivity using an incident light source (Col. 1, lines 60-68), and
- b) computer code for comparing recorded data from said recording to predetermined data representative of known print medium thickness and transmissivity (Claim 1).

Conclusion

4. Claims 1-14 are rejected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seung C. Sohn whose telephone number is (703) 308-

4093. The examiner can normally be reached on Monday through Friday from 8:30 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on (703) 308-4852. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

SCS
January 13, 2003


Kevin Pyo
Primary Examiner